BioMap and Living Waters

Guiding Land Conservation for Biodiversity in Massachusetts

Core Habitats of Petersham

This report and associated map provide information about important sites for biodiversity conservation in your area.

This information is intended for conservation planning, and is not intended for use in state regulations.

Produced by:

Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries and Wildlife
Executive Office of Environmental Affairs
Commonwealth of Massachusetts

Produced in 2004

Revised January 2005

BioMap and Living Waters:
Guiding Land Conservation for Biodiversity in Massachusetts

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* Depending on the location of Core Habitats, your city or town may not have all of these sections.

Spring Salamander
(Gyrinophilus porphyriticus)
Species of Special Concern

Funding for this project was made available by the Executive Office of Environmental Affairs, contributions to the Natural Heritage & Endangered Species Fund, and through the State Wildlife Grants Program of the US Fish & Wildlife Service.

Natural Heritage & Endangered Species Program

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For more information on rare species and natural communities, please see our fact sheets online at ***www.nhesp.org***

BioMap and Living Waters:
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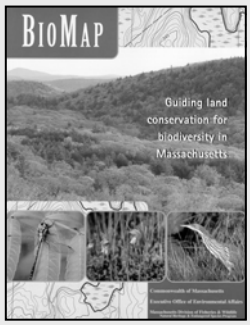
Introduction

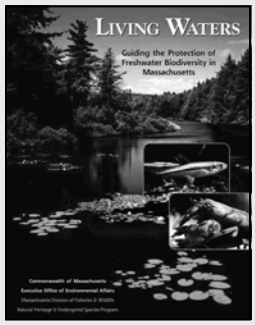
In this report, the Natural Heritage & Endangered Species Program provides you with site-specific biodiversity information for your area. Protecting our biodiversity today will help ensure the full variety of species and natural communities that comprise our native flora and fauna will persist for generatons to come.

The information in this report is the result of two statewide biodiversity conservation planning projects, ***BioMap*** and ***Living Waters***. The goal of the BioMap project, completed in 2001, was to identify and delineate the most important areas for the long-term viability of terrestrial, wetland, and estuarine elements of biodiversity in Massachusetts. The goal of the Living Waters project, completed in 2003, was to identify and delineate the rivers, streams, lakes, and ponds that are important for freshwater biodiversity in the Commonwealth. These two conservation plans are based on documented observations of rare species, natural communities, and exemplary habitats.

What is a Core Habitat?

Both BioMap and Living Waters delineate ***Core Habitats*** that identify the most critical sites for biodiversity conservation across the state. Core Habitats represent habitat for the state's most viable rare plant and animal populations and include exemplary natural communities and aquatic habitats. Core Habitats represent a wide diversity of rare species and natural communities (see Table 1), and these areas are also thought to contain virtually all of the other described species in Massachusetts. Statewide, BioMap Core Habitats encompass 1,380,000 acres of uplands and wetlands, and Living Waters identifies 429 Core Habitats in rivers, streams, lakes, and ponds.





Get your copy of the ***BioMap*** and ***Living Waters*** reports! Contact Natural Heritage at 508-792-7270, Ext. 200 or email natural.heritage@state.ma.us. Posters and detailed technical reports are also available.

Core Habitats and Land Conservation

One of the most effective ways to protect biodiversity for future generations is to protect Core Habitats from adverse human impacts through land conservation. For Living Waters Core Habitats, protection efforts should focus on the ***riparian areas***, the areas of land adjacent to water bodies. A naturally vegetated buffer that extends 330 feet (100 meters) from the water's edge helps to maintain cooler water temperature and to maintain the nutrients, energy, and natural flow of water needed by freshwater species.

In Support of Core Habitats

To further ensure the protection of Core Habitats and Massachusetts' biodiversity in the long-term, the BioMap and Living Waters projects identify two additional areas that help support Core Habitats.

In BioMap, areas shown as ***Supporting Natural Landscape*** provide buffers around the Core Habitats, connectivity between Core Habitats, sufficient space for ecosystems to function, and contiguous undeveloped habitat for common species. Supporting Natural Landscape was

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generated using a Geographic Information Systems (GIS) model, and its exact boundaries are less important than the general areas that it identifies. Supporting Natural Landscape represents potential land protection priorities once Core Habitat protection has been addressed.

In Living Waters, ***Critical Supporting Watersheds*** highlight the immediate portion of the watershed that sustains, or possibly degrades, each freshwater Core Habitat. These areas were also identified using a GIS model. Critical Supporting Watersheds represent developed and undeveloped lands, and can be quite large. Critical Supporting Watersheds can be helpful in land-use planning, and while they are not shown on these maps, they can be viewed in the Living Waters report or downloaded from www.mass.gov/mgis.

Understanding Core Habitat Species, Community, and Habitat Lists

What's in the List?

Included in this report is a list of the species, natural communities, and/or aquatic habitats for each Core Habitat in your city or town. The lists are organized by Core Habitat number.

For the larger Core Habitats that span more than one town, the species and community lists refer to the entire Core Habitat, not just the portion that falls within your city or town. For a list of all the state-listed rare species within your city or town's boundary, whether or not they are in Core Habitat, please see the town rare species lists available at www.nhesp.org.

The list of species and communities within a Core Habitat contains only the species and natural communities that were explicitly included in a given BioMap or Living Waters Core Habitat. Other rare species or examples of other natural communities may fall within the Core Habitat, but for various reasons are not included in the list. For instance, there are a few rare species that are omitted from the list or summary because of their particular sensitivity to the threat of collection. Likewise, the content of many very small Core Habitats are not described in this report or list, often because they contain a single location of a rare plant

Table 1. The number of rare species and types of natural communities explicitly included in the BioMap and Living Waters conservation plans, relative to the total number of native species statewide.

BioMap		
	Species and Verified Natural Community Types	
Biodiversity Group	**Included in BioMap**	**Total Statewide**
Vascular Plants	246	1,538
Birds	21	221 breeding species
Reptiles	11	25
Amphibians	6	21
Mammals	4	85
Moths and Butterflies	52	An estimated 2,500 to 3,000
Damselflies and Dragonflies	25	An estimated 165
Beetles	10	An estimated 2,500 to 4,000
Natural Communities	92	> 105 community types
Living Waters		
	Species	
Biodiversity Group	**Included in Living Waters**	**Total Statewide**
Aquatic Vascular Plants	23	114
Fishes	11	57
Mussels	7	12
Aquatic Invertebrates	23	An estimated > 2500

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species. Some Core Habitats were created for suites of common species, such as forest birds, which are particularly threatened by habitat fragmentation. In these cases, the individual common species are not listed.

What does 'Status' mean?

The Division of Fisheries and Wildlife determines a status category for each rare species listed under the Massachusetts Endangered Species Act, M.G.L. c.131A, and its implementing regulations, 321 CMR 10.00. Rare species are categorized as Endangered, Threatened, or of Special Concern according to the following:

- ***Endangered*** species are in danger of extinction throughout all or a significant portion of their range or are in danger of extirpation from Massachusetts.
- ***Threatened*** species are likely to become Endangered in Massachusetts in the foreseeable future throughout all or a significant portion of their range.
- ***Special Concern*** species have suffered a decline that could threaten the species if allowed to continue unchecked or occur in such small numbers or with such restricted distribution or specialized habitat requirements that they could easily become Threatened in Massachusetts.

In addition, the Natural Heritage & Endangered Species Program maintains an unofficial ***watch list*** of plants that are tracked due to potential conservation interest or concern, but are not regulated under the Massachusetts Endangered Species Act or other laws or regulations. Likewise, described natural communities are not regulated any laws or regulations, but they can help to identify ecologically important areas that are worthy of protection. The status of natural communities reflects the documented number and acreages of each community type in the state:

- ***Critically Imperiled*** communities typically have 5 or fewer documented sites or have very few remaining acres in the state.
- ***Imperiled*** communities typically have 6-20 sites or few remaining acres in the state.
- ***Vulnerable*** communities typically have 21-100 sites or limited acreage across the state.
- ***Secure*** communities typically have over 100 sites or abundant acreage across the state; however excellent examples are identified as Core Habitat to ensure continued protection.

Legal Protection of Biodiversity

BioMap and Living Waters present a powerful vision of what Massachusetts would look like with full protection of the land that supports most of our biodiversity. To create this vision, some populations of state-listed rare species were deemed more likely to survive over the long-term than others.

Regardless of their potential viability, all sites of state-listed species have full legal protection under the Massachusetts Endangered Species Act (M.G.L. c.131A) and its implementing regulations (321 CMR 10.00). Habitat of state-listed wildlife is also protected under the Wetlands Protection Act Regulations (310 CMR 10.37 and 10.59). The ***Massachusetts Natural Heritage Atlas*** shows **Priority Habitats**, which are used for regulation under the Massachusetts Endangered Species Act and Massachusetts Environmental Policy Act (M.G.L. c.30) and **Estimated Habitats**, which are used for regulation of rare wildlife habitat under the Wetlands Protection Act. For more information on rare species regulations, see the *Massachusetts Natural Heritage Atlas*, available from the Natural Heritage & Endangered Species Program in book and CD formats.

BioMap and Living Waters are conservation planning tools and do not, in any way, supplant the Estimated and Priority Habitat Maps which have regulatory significance. Unless and until the combined BioMap and Living Waters vision is fully realized, we must continue to protect all populations of our state-listed species and their habitats through environmental regulation.

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Understanding Core Habitat Summaries

Following the BioMap and Living Waters Core Habitat species and community lists, there is a descriptive summary of each Core Habitat that occurs in your city or town. This summary highlights some of the outstanding characteristics of each Core Habitat, and will help you learn more about your city or town's biodiversity. You can find out more information about many of these species and natural communities by looking at specific ***fact sheets*** at www.nhesp.org.

Next Steps

BioMap and Living Waters were created in part to help cities and towns prioritize their land protection efforts. While there are many reasons to conserve land – drinking water protection, recreation, agriculture, aesthetics, and others – BioMap and Living Waters Core Habitats are especially helpful to municipalities seeking to protect the rare species, natural communities, and overall biodiversity within their boundaries. Please use this report and map along with the rare species and community fact sheets to appreciate and understand the biological treasures in your city or town.

Protecting Larger Core Habitats

Core Habitats vary considerably in size. For example, the average BioMap Core Habitat is 800 acres, but Core Habitats can range from less than 10 acres to greater than 100,000 acres. These larger areas reflect the amount of land needed by some animal species for breeding, feeding, nesting, overwintering, and long-term survival. Protecting areas of this size can be very challenging, and requires developing partnerships with neighboring towns.

Prioritizing the protection of certain areas within larger Core Habitats can be accomplished through further consultation with Natural Heritage Program biologists, and through additional field research to identify the most important areas of the Core Habitat.

Additional Information

If you have any questions about this report, or if you need help protecting land for biodiversity in your community, the Natural Heritage & Endangered Species Program staff looks forward to working with you.

Contact the Natural Heritage & Endangered Species Program:

by Phone *508-792-7270, Ext. 200*

by Fax: *508-792-7821*

by Email: *natural.heritage@state.ma.us*.

by Mail: *North Drive*
Westborough, MA 01581

The GIS datalayers of BioMap and Living Waters Core Habitats are available for download from MassGIS: www.mass.gov/mgis

Check out www.nhesp.org for information on:

- Rare species in your town
- Rare species fact sheets
- BioMap and Living Waters projects
- Natural Heritage publications, including:
  - Field guides
  - Natural Heritage Atlas, and more!

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BioMap: Species and Natural Communities

Petersham

Core Habitat BM504

Natural Communities

Common Name	Scientific Name	Status
Acidic Rock Cliff Community		Secure
Acidic Rocky Summit/Rock Outcrop Community		Secure
Acidic Talus Forest/Woodland		Secure
Circumneutral Talus Forest/Woodland		Vulnerable
Kettlehole Level Bog		Imperiled
Level Bog		Vulnerable
Oak - Hemlock - White Pine Forest		Secure
Oak - Hickory Forest		Secure
Ridgetop Chestnut Oak Forest/Woodland		Secure
Shallow Emergent Marsh		Secure

Plants

Common Name	Scientific Name	Status
Climbing Fumitory	*Adlumia fungosa*	Threatened
Muskflower	*Mimulus moschatus*	Endangered

Invertebrates

Common Name	Scientific Name	Status
Beaver Pond Clubtail	*Gomphus borealis*	Special Concern
New England Bluet	*Enallagma laterale*	Special Concern
Sensitive Rare Invertebrate		
Spatterdock Darner	*Aeshna mutata*	Special Concern

Vertebrates

Common Name	Scientific Name	Status
Bald Eagle	*Haliaeetus leucocephalus*	Endangered
Blue-spotted Salamander	*Ambystoma laterale*	Special Concern

Common Loon	*Gavia immer*	Special Concern
Eastern Box Turtle	*Terrapene carolina*	Special Concern
Four-toed Salamander	*Hemidactylium scutatum*	Special Concern
Grasshopper Sparrow	*Ammodramus savannarum*	Threatened
Marbled Salamander	*Ambystoma opacum*	Threatened
Southern Bog Lemming	*Synaptomys cooperi*	Special Concern
Spotted Turtle	*Clemmys guttata*	Special Concern
Spring Salamander	*Gyrinophilus porphyriticus*	Special Concern
Water Shrew	*Sorex palustris*	Special Concern
Wood Turtle	*Clemmys insculpta*	Special Concern

Core Habitat BM553

Natural Communities

Common Name	Scientific Name	Status
Level Bog		Vulnerable

Invertebrates

Common Name	Scientific Name	Status
Beaver Pond Clubtail	*Gomphus borealis*	Special Concern
Bog Elfin	*Callophrys lanoraieensis*	Threatened
New England Bluet	*Enallagma laterale*	Special Concern
Sensitive Rare Invertebrate		
Slender Clearwing Sphinx Moth	*Hemaris gracilis*	Special Concern
Spatterdock Darner	*Aeshna mutata*	Special Concern

Core Habitat BM554

Natural Communities

Common Name	Scientific Name	Status
Spruce-Fir Boreal Swamp		Vulnerable

Core Habitat BM559

Vertebrates

Common Name	Scientific Name	Status
American Bittern	*Botaurus lentiginosus*	Endangered

BioMap: Core Habitat Summaries

Petersham

Core Habitat BM504

This, the largest Core Habitat, encompasses all of the Quabbin Reservoir and surrounding watershed lands that together support a tremendous wealth of biodiversity. Highlights include pristine habitats for rare dragonflies and damselflies, a multitude of large, high-quality natural communities, and several rare plant species such as the Endangered Muskflower. The Quabbin Reservoir supports the highest density of breeding Common Loons and Bald Eagles in southern New England. The area also supports other rare vertebrates, from Wood Turtles to Water Shrews.

The Core Habitat includes large tracts of upland forest and riparian habitats to the east of the Quabbin Reservation, Muddy Brook and its tributaries, including Heminway Swamp, and several miles of the East Branch of the Swift River. North of the Quabbin Reservation, it includes the Middle Branch of the Swift River, Blackington Swamp, forested and shrub wetlands near the Spectacle Ponds, and portions of Shutesbury and Wendell State Forests. Between the western edge of Quabbin Reservation and Rte. 2, the Core Habitat includes riparian habitats along Jabish Brook. Conservation of the relatively small remaining areas of unprotected land within this Core Habitat is desirable to increase the amount of contiguous, protected habitat.

Natural Communities

There are extensive Oak-Hickory and Oak-Hemlock-White Pine Forests that surround the Quabbin Reservoir. Oak-Hickory Forests are dominated by a variety of Oak species, with Hickories present in lower densities. They generally occupy well-drained sites, such as upper slopes or ridgetops often with west and south-facing aspects. Here these forests support some of the largest disturbance-free Acidic Talus Forests and Acidic Cliffs in the state. Acidic Talus Forest communities develop on boulder strewn slopes below cliffs, with scattered trees, tall shrubs, vines, and ferns. There is often a gradient of vegetation density as the slope changes, with more trees on the lower slope. Small patches of Ridgetop Chestnut Oak Forests commonly occur on the dry, rocky, summits above these talus slopes. This Core Habitat also contains several high-quality bogs, including one classic northern Kettlehole Level Bog in excellent condition, which is buffered by upland forest and free of disturbance. Kettlehole Level Bogs are acidic dwarf shrub peatlands with little water input or outflow that form in circular depressions left by melting iceblocks in sandy glacial outwash. The vegetation in Kettlehole Level Bogs usually grows in rings.

Plants

This Core Habitat supports a population of the Endangered Muskflower, a small yellow-flowered plant of seeps. Also present is a healthy population of the Threatened Climbing Fumitory, a biennial vine that clambers over rocks.

Invertebrates

Numerous wetlands of many different types are dispersed throughout this Core Habitat, providing pristine habitat for rare dragonflies and damselflies that is located within a very large and unfragmented natural landscape. For example, boggy areas are inhabited by the New England Bluet damselfly, and ponds and coves around the perimeter of Quabbin Reservoir are habitat for the Beaver Pond Clubtail and the Spatterdock Darner dragonflies. It is likely that this Core Habitat is inhabited by many other rare dragonfly and damselfly species.

Vertebrates

The waters and shoreline of the Quabbin Reservoir support the highest density of breeding Common Loons and breeding and wintering Bald Eagles in southern New England. Riparian habitats along Muddy Brook, the Swift River, and Jabish Brook provide significant habitat for Wood Turtles. Populations of Spotted and Eastern Box Turtles, Four-toed, Spring, Marbled, and Blue-spotted Salamanders, Water Shrews, and Southern Bog Lemmings are known from various locations within this Core Habitat, and more populations likely occur here. This Core Habitat also contains one of the largest undeveloped blocks of habitat in central Massachusetts for a variety of forest birds. Conservation efforts should focus on expanding and connecting the large areas of conservation land that are already protected within this Core Habitat.

Core Habitat BM553

Anchored in Harvard Forest and Petersham State Forest, this Core Habitat includes wetland and upland habitats that support a diversity of invertebrates, including several rare species of moths, butterflies, dragonflies, and damselflies. It also contains a high-quality Level Bog community. Much of this Core Habitat is on conservation land and further protection of the remaining areas is desirable to increase the amount of contiguous, protected habitat.

Natural Communities

This Core Habitat contains a high-quality, partially buffered Level Bog that is free of human disturbances. Level Bogs are dwarf shrub peatlands, generally with pronounced hummock and hollow formations. These wetland peatlands are our most acidic and nutrient-poor, because they receive little overland water input, and are not connected to the water table. Here the peatland complex consists of dwarf shrubs, Spruce, and Tamarack.

Invertebrates

This Core Habitat includes Harvard Pond, Tom Swamp, Riceville Pond, and the surrounding undeveloped and unfragmented landscape, all of which provide important habitat for rare invertebrates. Vegetation in Tom Swamp is characteristic of northern bogs, including mats of Sphagnum moss, Pitcher Plants, Leatherleaf, Highbush Blueberry, Rhodora, Black Spruce, and Tamarack, providing habitat for rare butterflies and moths such as the Bog Elfin and the Slender Clearwing Sphinx moth. Harvard Pond, Tom Swamp, and Riceville Pond also provide important habitat for rare dragonflies and damselflies including the New England Bluet damselfly, the Beaver Pond Clubtail dragonfly, and the Spatterdock Darner dragonfly.

Core Habitat BM554

Natural Communities

This Core Habitat contains a large and mature Spruce-Fir Boreal Swamp with good species diversity, no exotic invasive plant species, and few disturbances. Spruce-Fir Boreal Swamps are forested wetlands dominated by Red Spruce and Balsam Fir. These swamps are typically found at stream headwaters or in poorly drained basins in the mountainous, northwestern part of the state. Here the swamp is well-buffered by an extensive forested landscape.

Core Habitat BM559

Vertebrates

This Core Habitat encompasses habitat for the American Bittern, a rare marsh bird, in areas of beaver-impounded stream bordered by freshwater marsh, shrubby wetlands, and wet meadows along two miles of the East Branch of the Swift River in Petersham. Over 90% of the area is protected as conservation land within the Popple Camp Wildlife Management Area.

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Living Waters: Species and Habitats

Petersham

Core Habitat LW016

Exemplary Habitats

Common Name	Scientific Name	Status
Invertebrate Habitat		----------

Core Habitat LW019

Exemplary Habitats

Common Name	Scientific Name	Status
Invertebrate Habitat		----------

Core Habitat LW290

Exemplary Habitats

Common Name	Scientific Name	Status
Invertebrate Habitat		----------

Invertebrates

Common Name	Scientific Name	Status
Creeper	*Strophitus undulatus*	Special Concern
Eastern Pearlshell	*Margaritifera margaritifera*	----------
Triangle Floater	*Alasmidonta undulata*	Special Concern

Core Habitat LW309

Exemplary Habitats

Common Name	Scientific Name	Status
Lake/Pond Habitat		----------

Fishes

Common Name	Scientific Name	Status
Bridle Shiner	*Notropis bifrenatus*	Special Concern

Core Habitat LW368

Exemplary Habitats

Common Name	Scientific Name	Status
Invertebrate Habitat		----------

Living Waters: Core Habitat Summaries

Petersham

Core Habitat LW016

This tributary flows through a small wetland and a relatively large area of undeveloped land before it flows through the protected open space of the Quabbin Reservoir and empties into the East Branch of the Swift River. Some of the more ecologically sensitive aquatic insects - mayflies, stoneflies, and caddisflies - are found in the tributary. In the Core Habitat, the streambed is made up of a mix of boulders and cobbles that provide excellent habitat for these aquatic invertebrates. Forested stream banks help maintain the high-quality habitat by shading the water to keep it cool, by providing a natural energy source to the stream ecosystem in the form of leaves and sticks, and by controlling the runoff of sediments, excess nutrients, and water.

Core Habitat LW019

This tributary flows from its headwaters, which lie in an undeveloped landscape in Petersham, into the East Branch of the Swift River. Some of the more ecologically sensitive aquatic insects - mayflies, stoneflies, and caddisflies - are found in the Core Habitat. The streambed is made up of boulders and cobbles that provide excellent habitat for these aquatic invertebrates. Forested stream banks help maintain the high-quality habitat by shading the water to keep it cool, by providing a natural energy source to the stream ecosystem in the form of leaves and sticks, and by controlling the runoff of sediments, excess nutrients, and water. This site is of further significance because a species of stonefly, previously unknown to Massachusetts, was recently documented here.

Core Habitat LW290

This Core Habitat encompasses the East Branch of the Swift River and Moccasin Brook. These high-quality freshwater habitats support a diversity of aquatic invertebrates, including rare insects and mussels.

A majority of the land adjacent to the East Branch of the Swift River is conservation land, which helps explain the high quality of this valuable mussel habitat. Five mussel species are known from the river, including the rare Triangle Floater, Creeper, and Eastern Pearlshell mussels. Species abundance varies with changes in the river habitat. In the lower reaches, cool, clean water runs over a mixed rock and gravel river bed to provide excellent habitat for the Eastern Pearlshell, as well as its trout fish hosts. Further upriver, the topography flattens and the river becomes wider and slower. These changes increase silt deposition and aquatic vegetation, which allows the Triangle Floater to become abundant. The outlet of Carter Pond is also known to support three freshwater mussel species, including the rare Creeper. This small brook contains a series of riffles and pools, with a good amount mussel habitat in the sand that collects between the cobbles, rocks, and ledges of the stream bottom.

Both Moccasin Brook and the East Branch of the Swift River support healthy communities of the more ecologically sensitive aquatic insects: mayflies, stoneflies, and caddisflies. These water bodies are also home to two rare dragonfly species. The presence of these invertebrates indicates the stream habitats here are relatively free of the impacts of development. Naturally vegetated stream banks along the Core Habitat and upstream help maintain the habitat quality,

shading the water to keep it cool and controlling the runoff of sediments, excess nutrients, and water. This site provides an excellent example of the importance of riparian land protection for the conservation of Massachusetts' freshwater biodiversity. Protecting the remaining unprotected riparian lands adjacent to this Core Habitat will help maintain this excellent aquatic habitat.

Core Habitat LW309

The Quabbin Reservoir is the largest and deepest water body in Massachusetts. Although manmade, the cool, clean, low-nutrient waters of the Quabbin Reservoir provide habitats for fishes, aquatic insects, and other aquatic invertebrates that are uncommon in Massachusetts.

Within this Core Habitat, are two of the six known populations of Bridle Shiner in the Chicopee Watershed, one in Prescott Brook and the other in Pottapaug Pond, part of the Quabbin Reservoir. This fish Species of Special Concern has a small range from southern New England to South Carolina, and has been declining or extirpated in much of the region. The Bridle Shiner is typically found in well-vegetated, quiet waters. It feeds on small aquatic insects and other invertebrates, and is an important part of the freshwater ecosystem as prey for larger fishes. This population of Bridle Shiner in Prescott Brook has persisted since at least 1954.

Core Habitat LW368

Fever Brook arises in Tom Swamp in Petersham, flows through Harvard and Brooks Ponds, and through a series of beaver ponds surrounded by a mixed hemlock and northern hardwood forests. The aquatic insects found here include ecologically sensitive mayflies and caddisflies. The streambed is made up of a mix of materials, including boulders, sand, and silts with a large amount of coarse plant materials, which together provide excellent habitat for these aquatic invertebrates. The surrounding second growth forest helps maintain the high-quality habitat by shading the water to keep it cool, by providing a natural energy source to the stream ecosystem in the form of leaves, needles, and sticks, and by controlling the runoff of sediments, excess nutrients, and water.

Help Save Endangered Wildlife!

Please contribute on your Massachusetts income tax form or directly to the

Natural Heritage &
Endangered Species Fund

To learn more about the Natural Heritage & Endangered Species Program and the Commonwealth's rare species, visit our web site at: www.nhesp.org.